## II. In the Claims (Marked Versi n)

Please amend the claims as follows:

5. (Twice Amended) A vaccine comprising an avian reovirus [according to claim 1] belonging to an antigenic class of avian reoviruses, wherein the avian reovirus is able to induce antiserum in an animal, which antiserum causes a reduction of the plaques formed by avian reovirus ERS, a sample of which is deposited at the ECACC under accession no. 99011475, of at least 75% in a plaque reduction assay and a pharmaceutical acceptable carrier or diluent.

14. (Amended) An avian reovirus [according to claim 3,] which is avian reovirus ERS, a sample of which is deposited at the ECACC under accession no. 99011475 and further which positively reacts with polyclonal avian reovirus antiserum but not with monoclonal antibodies identified by accessions nos. 99011472, 99011473 and 99011474, samples of which are deposited at the ECACC.

## III. Remarks

### A. Rejections Under 35 USC §112, 2nd ¶

Claims 5-9 and 14 stand rejected as being vague and indefinite for depending upon non-elected claims. Applicants have amended Claims 5 and 14 to incorporate the limitations of Claim 1 and 4, respectively. The limitations of Claim 5 and 14 have not been amended and no estoppel should result from this amendment.

Claims 5-9 and 14 stand rejected as being vague and indefinite for failing to clearly set forth the salient features and characteristics of the vaccine. Applicants respectfully request reconsideration. Applicants have clearly set forth the claimed subject

matter. The Field of the invention states that embodiments of a vaccine of the present invention comprise an avian reovirus in a live attenuated or inactivated form. Applicants use of the word comprises and characterized specifically indicate that the scope of the claim is inclusive, or open-ended, and does not exclude additional unrecited elements. ***See Genetech Inc. v. Chiron Corp.***, 112 F.3d 495, 501 (Fed. Cir. 1997); MPEP 2111.03, Eighth Edition (2001). Accordingly, Applicants respectfully request reconsideration of the rejections.

**B. Rejections Under 35 USC §102(b)**

**1. the '348 application**

Claims 5-8 and 14 stand rejected as being anticipated by European Patent Application No. 0101348 A2 to Page et al. (hereinafter referred to as the '348 application). The Examiner contends that the '384 application discloses the preparation of poultry vaccines comprising an avian reovirus (strain $CO_8$). The Examiner states that while the reference relied upon does not disclose the use of a plaque reduction assay in characterizing the virus disclosed in the '384 application, the disclosed virus of the '384 application appears to display the same genotypic and phenotypic characteristics as that of the instantly claimed virus. Applicants respectfully request reconsideration.

Applicants specifically addressed strain $CO_8$ and illustrated that it does not possess the same characteristics and is different from the claimed invention. Reference to Example 1, table 3, page 19, illustrates that avian reoviruses of the present invention are characterized differently with different monoclonal antibodies. The $CO_8$ strain reacted positively with the polyclonal Rabbit 68A, 154, and 14-67, the same as embodiments of

the ERS strain of the present invention. However, embodiments of the present invention and the $CO_8$ strain were characterized differently in relation to a monoclonal antibody. $CO_8$ reacted positively with monoclonal antibodies INT 13-06 and 15-01 INT and negatively to only monoclonal antibody INT 14-11. Embodiments of the present invention reacted negatively to the monoclonal antibodies tested, including INT 14-11, INT 13-06, and 15-01 INT. Therefore, a distinct and characterizable difference is present as between $CO_8$ strain and embodiments of the present invention. It has long been the law that a rejection for anticipation or lack of novelty requires that all the elements of the claimed invention be described in a single reference. ***Richardson v. Suzuki Motor Co.***, 868 F.2d 1226, 1236 (Fed. Cir.), ***cert. denied***, 110 S.Ct. 154 (1989). Further, the law requires that the reference describe the claimed invention sufficiently to have placed a person of ordinary skill in the field of the invention in possession of the invention. ***Akzo N.V. v. United States Int'l Trade Comm'n***, 808 F.2d 1471, 1479 (Fed. Cir. 1986), ***cert. denied***, 482 U.S. 909 (1987); ***In re Coker***, 463 F.2d 1344, 1348 (CCPA 1972). Here, there is no disclosure of Applicants' invention. Further, there is a definite and characterizable difference between the claimed invention and the $CO_8$ strain as disclosed by the '348 application. Accordingly, Applicants respectfully request reconsideration of the rejection.

**2. the '728 application**

Claims 5-7, 9, and 14 stand rejected as being anticipated by European Patent Application No. 0687728 A2 to Rosenberger et al. (hereinafter referred to as the '728 application). The Examiner contends that the '728 application discloses the preparation

of poultry vaccines comprising an avian reovirus (strain 2177). The Examiner further contends that Applicants invention is anticipated because the '728 application discloses isolating strain 2177 from poultry using similar materials and methods. However, the Examiner does admit that the '728 application does not disclose characterization with a plaque reduction assay. Applicants respectfully request reconsideration of the rejection in light of this response.

The assignee of this application is very familiar with the '728 application as it is also assigned to the instant assignee.

Applicants specifically addressed strain 2177 and illustrated that it does not possess the same characteristics and is different from the claimed invention. Reference to Example 1, table 3, page 19, illustrates that avian reoviruses of the present invention are characterized differently with different monoclonal antibodies. The 2177 strain reacted positively with the polyclonal Rabbit 68A, 154, and 14-67, the same as embodiments of the ERS strain of the present invention. However, embodiments of the present invention and the 2177 strain were characterized differently in relation to a monoclonal antibody. Strain 2177 reacted positively with monoclonal antibody 15-01 INT and negatively to monoclonal antibodies INT 14-11 and INT 13-06. Embodiments of the present invention reacted negatively to the monoclonal antibodies tested, including INT 14-11, INT 13-06, and 15-01 INT. Therefore, a distinct and characterizable difference is present as between 2177 strain and embodiments of the present invention. Further, as shown in Table 2A, serum raised against strain 2177 is not able to cause a plaque reduction of the plaques formed by a reovirus ERS strain. As stated in relation to the strain above, a reference cannot be said to anticipate unless it contains all of the limitations of the invention. ***See***

***Richardson v. Suzuki Motor Co.***, 868 F.2d 1226, 1236 (Fed. Cir.), ***cert. denied***, 110 S.Ct. 154 (1989). Here, there is no disclosure that would have placed a person of ordinary skill in the art in possession of the invention. Therefore, the reference does no anticipate. ***See Akzo N.V. v. United States Int'l Trade Comm'n***, 808 F.2d 1471, 1479 (Fed. Cir. 1986), ***cert. denied***, 482 U.S. 909 (1987); ***In re Coker***, 463 F.2d 1344, 1348 (CCPA 1972). Here, there is a definite and characterizable difference between the claimed invention and the 2177 strain as disclosed by the '728 application.

**C. Rejections Under 35 USC §103(a)**

Claim 8 stands rejected as being unpatentable over European Patent Application No. 0687728 A2 to Rosenberger et al. (hereinafter referred to as the '728 application). The Examiner contends that while this teaching does not explicitly describe a vaccine composition comprising avian reovirus vaccine strain and an adjuvant, it does state (p. 3, ll. 35-45) that "one or more compounds having adjuvant activity may be added." Applicants respectfully request reconsideration of the rejection in light of this response.

However, the prior art cited must contain all elements of the claimed invention. Whether obviousness is claimed from one patent or more. ***See Shanklin Corp. v. Springfield Photo Mount Co.***, 521 F.2d 609, 616-17 (1st Cir. 1975), ***cert. denied***, 424 US 914 (1976). Further, there must be some motivation, suggestion or teaching of the desirability of making the specific combination that was made by the Applicants' invention. ***In re Dance***, 160 F.3d 1339, 1343 (Fed. Cir. 1998); ***In re Gordon***, 733 F.2d 900, 902 (Fed. Cir. 1984). Even when obviousness is based on a single prior art reference, there must be a showing of a suggestion or motivation to modify the teachings

of that reference. *See* ***B.F. Goodrich Co. v. Aircraft Breaking Sys. Corp.*** , 72 F.3d 1577, 1582 (Fed. Cir. 1996). Here, all elements of Applicants' invention are not disclosed. The strain relied upon by the Examiner is characterized differently that Applicants' strain. Accordingly, there is no *prima facie* case of obviousness. The reoviruses of the present invention are of a novel and antigenic class of which there is no prior recognized existence. Therefore, Applicants respectfully request reconsideration of the rejection.

## V. Conclusion

Applicants respectfully request reconsideration of the objections and rejections in light of this response. The application is believed in a condition for allowance and Applicants respectfully request such action. Please call the below undersigned attorney for any assistance in securing allowance of this application. Further, if the Examiner would find it helpful, Applicants' attorney would like to schedule an interview. Please charge deposit account number 02-2334 for any required fees.

Date: 3/28/02

Sincerely,

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